

REMARKS

I. Status of the Claims

Claims 14-40 are pending in the application, claims 1-13 having been canceled previously. Claims 24, 26 and 31-40 have been withdrawn. Claims 14-23, 25 and 27-30 stand rejected, variously, under 35 U.S.C. §§112 (first and second paragraphs), 102 and 103. The specific grounds for rejection, and applicants' response thereto, are set out in detail below.

II. Objections to the Title, Abstract and Specification

The examiner has objected to the Title as not descriptive. Applicants have offered an amended Title that is believed to address the examiner's concerns.

The examiner has objected to the abstract. Applicants are unclear precisely as what are the perceived shortcomings of the abstract. However, a revised abstract has been prepared.

The examiner has objected to the specification for various alleged informalities and errors. Some of these have been addressed by amendment. Others, for example, the spelling of *Christoforidis* is believed to be accepted in the field, are not addressed as they are believed not to run afoul of §112, first paragraph.

III. Rejections Under 35 U.S.C. §112

A. First Paragraph

The examiner has rejected all claims as lacking an enabling disclosure. More specifically, the examiner argues that the specification fails to provide sufficient basis for the assertion that pharmaceuticals suitable for treatment of the wide variety of identified diseases can be identified in accordance with the claimed methods. Applicants traverse, but in the interest of

advancing the prosecution, amendments have been offered to the claims to remove reference to disease therapy, and instead focus on the identification of substances with desirable qualities. As such, it is believed that the claims should be acceptable to the examiner. Reconsideration and withdrawal of the rejection is therefore respectfully requested.

B. Second Paragraph

Claims 14, 19, 22, and 23 stand rejected as allegedly indefinite. Amendments have been provided addressing each ground of rejection. Reconsideration and withdrawal of the rejection is therefore respectfully requested.

IV. Rejection Under 35 U.S.C. §102

Claims 14, 17-22, 25 and 27-30 stand rejected as allegedly anticipated by U.S. Patent 5,582,995. Applicants traverse, but in the interest of advancing the prosecution, the claims have been amended to recite that the GTPase is a Rab family GTPase. Since the '995 patent fails to disclose such Rab family GTPases, the reference cannot be held to be anticipatory. Reconsideration and withdrawal of the rejection is therefore respectfully requested.

V. Rejections Under 35 U.S.C. §103

Claims 14-23, 25, and 27-30 stand rejected as allegedly obvious over the '995 patent in view of a variety of secondary references. With the amendment of claim 14 to recite a Rab family GTPase, however, applicants believe that none of the asserted combinations of references teaches each element of the claims as presented for reconsideration. Therefore, reconsideration and withdrawal of the rejection is respectfully requested.

Moreover, applicants further submit that the present invention is non-obvious for the following additional reasons. Though the interaction of a small GTPase with effectors and regulators is a conserved mechanism that can be applied for the entire family of Ras-like GTPases, the functional principle of Rab proteins is completely different from other GTPases in terms of downstream function and mode of action. Although these molecules are commonly recognized to play a role as signaling molecules, it is not possible to infer that all Ras GTPases play the same regulatory role.

For example, it is well established that, whereas Ras and its downstream effectors such as Raf regulate signal transduction cascades, Rab GTPases regulate membrane trafficking (Zerial and Huber, 1995. *GUIDEBOOK TO THE SMALL GTPases*, Oxford University Press/Sambrook and Tooze Publications). Therefore, whereas the Ras machinery invariably regulates overall proliferative as well as differentiation functions, the Rab machinery plays more selectively a role in the intracellular transport between organelles. Also, the Rab machinery exploits the functional cooperativity of its effectors (Zerial and McBride, "Rab proteins as membrane organizers," *Nat. Rev. Mol. Cell Biol.* 2, 107-117. 2001), a notion so far never attributed to other GTPases such as Ras and Rho proteins.

In sum, in formulating this rejection, the examiner has overlooked the unpredictability inherent in the question of whether Rab GTPases will function the same as other Ras GTPases. Because of this unpredictability, the skilled artisan would not perceive the requisite likelihood of success for obviousness to stand. *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed.Cir.1991). Reconsideration and withdrawal of the rejection is therefore respectfully requested.

VI. Conclusion

In light of the foregoing, applicants respectfully submit that all claims are in condition for allowance, and an early notification to that effect is earnestly solicited. Should the examiner have any questions regarding this response, a telephone call to the undersigned is invited. Please date stamp the enclosed postcard as evidence of receipt.

Respectfully submitted,



Steven L. Highlander
Reg. No. 37,642
Attorney for Applicants

FULBRIGHT & JAWORSKI L.L.P.
600 Congress Avenue, Suite 2400
Austin, Texas 78701
(512) 474-5201

Date: April 13, 2005